DOCUMENT RESUME

ED 355 202 SP 034 326

AUTHOR Rieck, William A.
TITLE The Current Undergraduate Pedagogical Preparation of Secondary School Teachers.
PUB DATE Nov 92
NOTE 14p.; Paper presented at the Annual Conference of the Mid-South Educational Research Association (21st, Knoxville, TN, November 11-13, 1992).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Competency Based Teacher Education; *Credits; Education Majors; Higher Education; Instruction; National Surveys; *Preservice Teacher Education; *Program Effectiveness; *Required Courses; Schools of Education; Secondary Education; *Secondary School Teachers; Student Teaching; *Teacher Education Programs; Undergraduate Study

ABSTRACT

This survey was designed to identify courses in pedagogy required of secondary education majors, credits awarded, student teaching credit and evaluation, and effectiveness of colleges and universities in preparing teachers for public schools. Responses from 310 teacher education programs accredited by the National Council for the Accreditation of Teacher Education (NCATE) for secondary education indicated the following results: (1) 50 percent or more of reporting institutions require secondary education majors to take courses in generic methods, specific methods, reading in content field, special education, and tests and measurements; (2) the most common pattern of course requirements includes a 3-credit course each in generic methods, subject specific methods, reading in content, and special education, and 12 credits for student teaching; (3) 50 percent of the institutions used regular grades for student teaching; (4) in 50 percent of student teaching cases, the college supervisor made the grading decision; and (5) 50 percent of the institutions reported less than complete coverage on 22 of 37 specific teaching skills or competencies, in the areas of planning, curriculum, teaching strategies, educational technology, exceptional children, student assessment, and ancillary skills. The study concludes that restructuring of pedagogical coursework is needed, and that school districts should contemplate staff development activities in weak areas of teacher preparation. (Contains 21 references.) (JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED355202

The Current Undergraduate Pedagogical Preparation of Secondary School Teachers

William A. Rieck, Ed.D.
Head, Department of Curriculum and Instruction
University of Southwestern Louisiana

Calls for re-shaping teacher education in general seem to re-cycle with a regularity as dependable as sunrise and sunset. One author (Sebesta, 1991) has described a cycle in methods content over his career as a teacher educator which includes periodic shifts among various types of methods courses. Today we are again hearing calls for change, not only in elementary and secondary education, but in teacher education as well.

it is difficult to identify the initial impetus for change. Perhaps the first hint came with the work of Coleman (1966) and Jencks (1972). Reports such as A Nation At Risk (1983) and Sizer's A Celebration of Teaching: High Schools in the 1980's (1983) expanded on both the state of education and the need for change. Interestingly enough, as far as secondary education is concerned, many of the findings and recommendations were similar to those suggested by Conant (1959) many years earlier.

In a climate where revolutionary change is proposed, it is natural to examine the options. The Holmes Group (1986) made clear suggestions for both subject majors for all teachers and competency in professional educations. Many educators have incorrectly assumed that this means an undergraduate degree followed by graduate professional preparation but, the Holes report makes no such statements. The Carnegie Forum (1986) has also suggested increasing the academic competence of teachers. Goodlad (1990), on the other hand, wants a complete re-structuring with heavy cooperation between higher education and the public schools.

With so much being written and spoken about the need for change it is, perhaps, a little surprising that the RATE project of the American Association of Colleges for Teacher Education (1991) reported that the vast majority of supervisors and cooperating teachers believe that current student teachers are adequately or more than adequately prepared for teaching. Neither this study or the previous ones , however, considered the course sequence or content of teacher education programs. Hunt (1987) adds credence to the RATE report in that his survey of state directors of certification find that current undergraduate programs are sufficient. Further, Tracy (1988) discovered that teachers, administrators, and school board members do a satisfactory job in preparing teachers for the public schools. One investigator (Gage, 1984) has, however, offered that many programs stress theory at the expense of the more pragmatic "how to" aspects of teaching.

It would seem that an examination of the pedagogical professional preparation of teachers would provide additional and necessary background information as we look at modifying current preparation programs. Toward that end this descriptive study was designed and conducted.

Research Concerns

The research initiative was designed to answer three major questions relative to undergraduate pre-service education programs:

(1) What courses in pedagogy are required of all secondary education majors and how many credits are awarded in each?

(2) What are the current practices relative to student teaching credit and evaluation?

(3) How effective a job are colleges and universities doing, in the eyes of the teacher educator, in preparing teachers for the public schools with the current curricula content of methods courses?

SP031326

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
W. Rieck

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Research Design

It was decided to develop a survey instrument for distribution to those institutions which were accredited in secondary education by the National Association for the Accreditation of Teacher Education (NCATE). In an effort to increase the probability of returns the instrument was confined to a single sheet, divided into two sections.

The first section of the instrument concerned itself with credits required in seven specific areas of pedagogical preparation. In each case respondents chose from the following choices: 0, 1, 2, 3, 4, 5, 6+. The exception to this selection was credit for student teaching which was a free response item. The areas surveyed were:

(1) Generic secondary methods courses.
(2) Subject specific methods courses.
(3) Discipline (behavior management).
(4) Reading in the content field.
(5) Tests and measurements.
(6) Special education.
(7) Student teaching.

In addition, part one asked questions concerning how student teaching credit was awarded and requested that the respondent indicate a preference for generic and / or subject specific methods courses.

The second part of the instrument identified thirty-seven variables, each of which was related to a specific teaching skill or competency. The number of items was limited to assure that all would fit on one side of the instrument. Topics were selected by reviewing items presented in selected texts (Clark and Starr, 1991; Orlich, et al., 1990), professional books (Hunter, 1982; McCarthy, 1980) and taped programs on teaching (ASCD, 1987). For purposes of analysis the topics were divided into seven general areas:

(1) Types and forms of lesson planning.
(2) Curriculum use and development
(3) Teaching techniques and methods.
(4) Educational technology.
(5) Classified and "at-risk" students.
(6) Student assessment.
(7) Ancillary skills and knowledge

To each of the variables on part two of the instrument respondents were asked to indicate the degree to which each subject was treated in methods courses, or if they were necessary at all. The following response codes were used:

A = Treated as completely as necessary
B = Treated, but not as completely as necessary
C = Not currently treated, but should be for a well rounded education
D = Not currently treated, and not needed

Once the instrument was designed it was necessary to select the population to be surveyed. To maximize the validity of results it was decided to use the entire population of institutions accredited by NCATE for secondary education. Mailing labels were secured from NCATE and addressed to either the Dean of Education or the Education Department Head. Each survey instrument came with a personalized letter of explanation, an offer to receive results, and an addressed, stamped return envelope. The collection period went from April 1991 through June 15, 1991. A total of 541 instruments were mailed with a return of 310 instruments for a response rate of 57.3%. The survey distribution and collection was done on a blind basis with no identification of individual institutions by name.

The distribution of NCATE accredited institutions for undergraduate programs in secondary education by regional accrediting areas is provided on Table One. Table One also

Table One

Distribution of Population and Responses by Regional Accrediting Associations

REGIONAL ACCREDITION ASSOCIATION	% POPULATION	% RESPONDENT
Middle State Association	8.9	9.5
New England Association	3.8	1.6
North Central Association	47.7	46.4
Northwest Association	5.4	4.9
Southern Association	31.6	25.7
Western Associaiton	2.6	1.4
Unknown		13.5

displays the percentage of completed returns by region, although 13.5% of the returns did not contain regional accrediting information as had been requested.

Data, once submitted, was entered into the computer for analysis. Frequency distributions, measures of central tendencies, and percentages were determined as appropriate. In addition, the case run was personally reviewed for the purposes of establishing a separate frequency distribution designed to determine the number of times a specific institution indicated less than complete preparation in topics on the second part of the instrument.

Results on Part One

It can be seen from Table Two that 50% or more of all reporting institutions require secondary majors to take course in generic methods, specific methods, reading in content field, special education, and tests and measurements. Discipline or behavior management was required in only 41.94% of the institutions. It should also be pointed out that 76.13% of the institutions require both a generic and a subject specific methods course, though the data also indicated that 83.23% of all respondents favor two methods courses, even if their respective institutions do not require that pattern.

Table three shows the measures of central tendencies for credit awarded in the various areas. Caution should be exercised in utilizing the results for "discipline" since thirty-four respondents indicated 6sh credit or more in that area. It is conjectured that some respondents confused the use of the term "discipline education" with "academic discipline" or subject major.

It can be seen from Table Three that the most common pattern of course requirements includes a 3SH course each in generic methods, subject specific methods, reading in content, and special education. The median results would also suggest that there are many schools that also require some work in tests and measurements and discipline education.

Results on student teaching were treated separately with, as can be seen from Table Four, 12 credits being the mode. The approximate middle third of the distribution from six to twelve credits represents 86.13% of the reporting institutions.

With respect to grading, it was found that 50.56% of the institutions used regular grades, 47.42% used either a pass/fail or credit/no credit option. In two cases it was indicated that the student had the option of being graded or not graded on the experience and in two other cases the institution did not indicate a response to the item.

Table Two

Percentaqge of Institutions Requiring Formal Courses in Selected Pedagogical Areas (n=310)

TYPE OF COURSE	PERCENT REQUIRING
Subject specific methods	87.74
Generic methods	86.13
Reading in content field	80.32
Special education	70.97
Tests and measurements	57.10
Discipline (behavior management)	41. 94

Note: ***76.13% require both generic and subject specific methods***

Table Three

Measures of Central Tendencies of Pedagogical Credits for All Institutions

TYPE OF COURSE	MEAN	MEDIAN	MODE
Generic methods	3.40	3.00	3.00
Subject sepcific methods	2.90	3.00	3.00
Reading in content field	2.32	3.00	3.00
Special education	1.93	2.00	3.00
Tests and measurements	1.46	1.50	0.00
Discipline (behavior management)	1.41	0.50	0.00

When grades or credit was granted, the survey found that in 50.06% of the cases it was the college supervisor that made the decision, in 30.32% of the instances it was cooperatively determined between the supervising teacher and the college instructor, in 22.9% of the cases both the college instructor and the cooperating teacher provided grades. In 2.26% of the cases the responsibility for evaluation was given totally to the cooperating teacher in the school.

Table Four

Frequency Distribution and Central Tendencies for Credits in Student Teaching (n=310)

CREDITS	FREQUENCY	CREDITS	FREQUENCY
0	0	11	7
1	5	12	102
2	2	12.5	1
3	4	13	0
4	1	14	7
5	1	15	3
6	33	16	4
7	3	17	0
8	30	18	0
9	39	19	0
10	53	20	1

MEAN = 10.00 MEDIAN = 10.00 MODE = 12.00

Results on Part Two

Before presenting the data from part two, it must be pointed out the the value for n varies among items. The variability is due to the fact that not all institutions responded to all items. Each of the tables in this section will show the n value for each item in the grouping.

Table Five provides information on planning for instruction. One would expect that this section would show a very high degree of complete preparation. Examining the total of incomplete or missing instruction shows that 15% or more of the institutions provide less than complete preparation all of the areas in the group. What was also surprising, as can be seen from Table Twelve, is that 1% of the institutions did not consider teaching lesson planning important, and 1.7% did not think it necessary to teach about learning styles. It is interesting to note that , although incomplete preparation in all areas is relatively high, only in lesson planning and unit planning is there an incidence of totally missing instruction 5% of the time or more.

Table Six presents results concerning curriculum. While the methods course is not intended to make an individual a curriculum expert, it may be appropriate to acquaint students with the use of curriculum guide and the way curriculum is developed. On both items in this category the results showed that 5% or more of the institutions did not teach anything about curriculum. Neither of these topics appeared on the listing of unnecessary topics.

Table Five

Percentage of Less Than Complete Preparation in Types and Forms of Planning

TOPIC	% INCOMPLETE	% MISSING	% TOTAL	n
Bloom's taxonomy	21.0	1.1	22.1	272
Learning styles	36.4	1.4	37.8	298
Lesson planning	14.8	6.4	15.2	297
Models of teaching	33.7	2.6	36.3	300
Objective writing	17.1	0.4	17.5	269
Unit planning	20.7	1.4	22.1	299

Table Six

Percentage of Less Than Complete Preparation in Matters of Curriculum

TOPIC	% INCOMPLETE	% MISSING	% TOTAL	n
Curriculum development	34.7	5.2	39.9	303
Curriculum guides	34.9	6.5	42.4	295

The topics considered essentially related to teaching techniques or strategies are listed in Table Seven. On each topic the possibility of less than complete or totally missing coverage exceeds 30%. Indeed, at 5% or more of the institutions the topics of concept attainment, cooperative learning, experimentation, homework, inquiry, role playing, and simulations are recognized as being important, but are missing from the instructional program. What may be even more revealing is that Table Twelve indicates that 1% or more of the institutions do not consider concept attainment, homework, mastery lecture, and traditional lecture.

In each of the four topics in educational technology, as shown on Table Eight, 5% or more of the institutions reported a complete lack of preparation; further, the range of less than complete preparation was from 41.1% for traditional audio-visual usage to a high of 83.7% for interactive video. Table Twelve further shows that an additional 1% or more of the institutions report that all topics, except computer assisted instruction, are not necessary to teach.

Table Seven

Percentage of Less Than Complete Preparation in Selected Teaching Techniques

TOPIC	% INCOMPLETE	% MISSING	% TOTAL	n
Concept attainment	50.7	5.9	56.6	272
Cooperative learning	44.0	7.7	51.7	273
Demonstration	41.5	0.4	41.9	272
Discovery	53.3	4.8	58.1	270
Discussion	29.2	1.5	30.7	274
Experimentation	55.9	6.5	62.4	270
Homework	53.1	24.9	78.0	268
Inquiry	54.2	4.4	58.6	273
Mastery lecture	41.4	6.3	47.7	268
Questioning technique	47.5	1.5	49.0	263
Role playing	54.0	4.8	58.8	272
Simulations	57.7	8.1	65.8	272
Traditional lecture	29.0	2.9	31.9	272

Table Eight

Percentage of Less Than Complete Preparation in Areas of Educational Technology

TOPIC	% INCOMPLETE	% MISSING	% TOTAL	n
Audio-Visual, traditional	31.3	9.8	41.1	275
Computer assisted instruction	56.3	12.2	68.5	270
Interactive video	29.6	54.1	83.7	270
Programmed Instruction	44.9	22.3	67.2	265

In terms of instruction relative to dealing with mainstreamed or "at-risk" students, Table Nine presents data that in 9% or more of the institutions instruction is missing. Further, in 59% or more of the cases instruction is not complete. The data would support the contention that this is an area where major shortcommings may be present.

Table Nine

Percentage of Less Than Complete Preparation in Dealing with Exceptional Children

TOPIC	% INCOMPLETE	% MISSING	% TOTAL	n
Mainstreaming	59.1	9.1	68.2	274
Students "at-risk"	59.9	12.7	72.6	267

The sixth area examined was pupil assessment. Data was collected about informal and formal formative assessment, summative assessment, test construction, and standardized tests. On each item, as can be seen from Table Ten, 50% or more of the institutions reported less than complete or missing preparation in the area. Fortunately, the only topic considered unnecessary by 1% or more of the institutions was standardized tests.

Table Ten

Percentages of Less Than Complete Preparation in Areas of Student assessment

TOPIC	% INCOMPLETE	% MISSING	% TOTAL	n
Formal, formative assessment	50.4	6.4	58.6	274
Informal, formative assessment	52.2	4.3	56.5	276
Standardized tests	54.2	10.0	64.2	271
Summative assessment	49.1	6.0	55.1	267
Test Construction	47.6	3.7	51.3	271

The final grouping of topics concerned itself with ancillary skills needed by teachers. An examination of Table Eleven shows that for each topic surveyed at least 50% of the institutions reported either less than complete, or missing preparation. None of the respondents indicated that any of the topics in this area was not needed.

The frequency distribution shown in Table Thirteen demonstrates that the typical institution responded to fourteen or the thirty-seven items with either an "incomplete preparation" or a "missing but needed" response. It can also be pointed out that in over half of the cases fourteen or more of the thirty-seven survey items were checked as either missing or incomplete.

Table Eleven
Percentage of Less Than Complete Preparation in Ancillary Skills Necessary for Teachers

TOPIC	% INCOMPLETE	% MISSING	% TOTAL	n
Conferencing skills	51.1	30.1	81.2	272
Cultural diversity	57.2	4.0	61.2	277
Discipline	46.6	3.4	50.0	296
Motivation	48.7	2.6	51,3	275
Roles of district personnel	49.1	8.7	57.8	277

Table Twelve
Topics Considered Unnecessary by 1% or More of the Respondents

TOPIC	%	TOPIC	%
Audio-visual	2.2	Lesson planning	1.0
Concept attainment	1.5	Mastery lecture	4.1
Conferencing skills	2.2	Programmed Instruction	15.1
Homework	4.9	Roles of employees	1.9
Interactive video	8.1	Standardized tests	1.5
Learning styles	1.7	Traditional lecture	7.0

Table Thirteen
Frequency Distribution of Institutions Indicating Less Than Complete Preparation on the Thirty-Seven Item List

# ITEMS	frequency	# ITEMS	frequency	#ITEMS	frequency
0	5	13	11	25	6
1	8	14	22	26	15
2	10	15	9	27	7
3	11	16	10	28	6
4	5	17	6	29	7
5	6	18	3	30	5
6	5	19	4	31	9
7	11	20	11	32	7
8	6	21	6	33	3
9	4	22	7	34	1
10	6	23	12	35	0
11	9	24	10	36	1
12	11			37	0

Delimitations and Assumptions

Before proceeding to a discussion on the results it is important to highlight some delimitations which must be kept in mind.

The topics included in the survey were finite in number. There are, of course, many other topics which could have been included. The number of items was limited, as indicated earlier, by the space allowed on the instrument. Such limits cause a degree of selectivity to be used in placing topics on the survey list. While the final decision on what topics to consider was that of the investigator, complete with his own prejudices and preferences, the list was reviewed by several colleagues and changes were made from the initial array.

Terms such as "less than complete preparation" mean different things to different people. Clearly not every one of the respondents has the same concept of "incomplete". We must, however, assume that it would not be easy to structure a definition which would be acceptable to so wide a variety of people. We must, therefore, take the various responses at face value.

One could suggest that professors and deans are harder on themselves than they need to be. Many people may never believe that they cover a topic as completely as they should, or as much as necessary for a beginning teacher. We can, of course, keep this in mind, but it must also be recalled that there be some instances where the "halo effect" is operating. There is no way of knowing how many may have "under-rated" their courses and how many may have "over-rated" so our options to assume honesty.

It must be assumeed that the individual completing the instrument was knowledgeable about the program at his or her institution. Since the letters were addressed to Deans and Department Heads, this is a reasonable assumption. In those cases where the administrator may have asked a faculty member to complete all , or part, of the form we must assume that the designee had the proper background knowledge.

Finally, the actual terms used within the survey instrument could have either been unfamiliar or confusing to some respondents. This is true even though all terms used have appeared in the professional literature or in course titles. It may be that in some of the cases where institutions responded to most, but not all, items in part two term unfamiliarity or confusion could have been the cause. This being said, we must assume that, for those items from which there was a response, the individual responding had a clear picture of what was being asked.

Discussion

The distribution of credits in pedagogical professional preparation seems sufficient for an undergraduate program. The modal number of 12 Sh in course work, coupled with 12 SH in student teaching, plus whatever foundation courses are required should be enough for the beginning teacher. Indeed, when we add the equivalent of a subject matter major and institutional core requirements, there may not be any room left in an undergraduate's schedule to add work in professional education.

What seems alarming are the responses to part two of the study. The fact that 50% of the institutions reported less than complete coverage on twenty-two of the thirty-seven topics would suggest some significant deficiencies which would have to be rectified later in staff development programs.

Planning is such an important aspect of good teaching that it boarders on shocking that so many students have less than complete preparation. If, as the data showed, 15.2% to 37.8% of institutions graduate students who are not fully prepared to deal with one or more aspects of planning, we will have a significant number of new teachers starting their professional career with one strike against them. This, coupled with the fact that 40% will not know how to use a curriculum guide, places the new teacher at a distinct disadvantage.

Teaching strategies are the tools that a teacher must use to communicate information and encourage critical thinking skills. The larger the arsenal of strategies, the more likely it will be that a teacher can maximize his or her effectiveness. The result that on ten of the thirteen items in the methods group there were 50% or more of the institutions providing less than complete preparation is disturbing. Areas of contemporary emphases such as cooperative learning, concept attainment, and discovery techniques are particularly weak. It would appear that those areas where higher order skills may be most effectively taught are also the areas where preparation is least.

One, seemingly basic, aspect of teaching skill is the theory and use of homework. This investigator is very concerned that 78% of the institutions reported less than complete preparation. Further, an additional 4.9% of the schools indicated that they do not believe it even necessary in the preparation of teachers. Perhaps one reason why many teachers complain about students not doing assignments is that the teachers have never learned what types of assignments are appropriate, and how to use the assignment when it is completed.

There is no question that technology is playing an ever increasing role in education. Looking at that area, however, shows us that 60% of the institutions do not completely prepare their students in most areas of technology. Even traditional audiovisual usage has shown a 40% rate of less than complete preparation. It would seem that teachers need to learn that one does not simply run a tape machine or show a movie. Good use of technology mandates that it be appropriately integrated into the instructional program . If current teacher education students are not being taught the proper use of such technologies, how do we expect them to teach effectively in the classrooms of today, let alone tomorrow?

Ever since PL94-142 the profession has paid increased attention to the needs of classified students. In the last few years we have also seen increasing attention to the "at-risk" population. In spite of this, however, more than two thirds of the teacher preparation institutions are graduating students with less than complete preparation in those area. it is doubtful that any new teacher will experience a schedule without any classified or "at risk" students, but how will they deal with them when they have not received instruction on what strategies to employ?

An important task of each teacher is to properly, fairly, and validly assess the performance of students. In all aspects of the process, we are not preparing new teachers completely. The lack of good assessment frequently leads to parent conferences and, possibly, disaffected youth. This investigator can not help but be curious as to the number of parent conferences, and the number of disaffected students new teachers will have because they are not sufficiently trained in assessment procedures.

Conclusions and Implications

It may be tempting to conclude that our teacher preparation institutions are not doing a satisfactory job. This, however, would be erroneous. One can only recall the studies cited earlier in this report that there is a high degree of satisfaction with new teacher performance in the marketplace. We may,however, conclude that there needs to be some re-structuring of pedagogical course work to provide an increased level of education in those areas where it is now "missing". Perhaps, too, some additional time may be needed on the areas which are "less than complete"

Just as a full container can not hold more, a complete curriculum can not contain more. Some additional selectivity may be in order, with some topics being deleted. It may be necessary, too, to examine the cognitive content of existing courses to avoid duplication of topics in such courses as generic and subject specific methods. Even with all of this, however, it is not likely that teacher educators will ever be able to do an absolutely complete job of preparing teachers.

A major implication of the study relates to the need for good staff development programs in the school. It has long been recognized that good school districts must provide quality staff

development (Rubin, 1969; Harris & Bessent, 1969) in order to assist teachers in improving their professional skills. Frequently the development programs maybe customized and related directly to the supervision and evaluation process (Mannat, 1988; Rieck, 1989) which enhances the probability of success in modifying and improving teaching behavior. It would seem, based on this study, that districts would be wise to contemplate development activities in those area where there are weaknesses in preparation.

References

A Nation At Risk: The Imperative for Educational Reform (1983). Washington, D.C.: National Commission on Excellence in Education, U.S. Department of Education.

A Nation Prepared: Teachers for the 21st Century (1986). New York: Carnegie Forum on Education and the Economy, U.S. Department of Education.

Clark, Leonard H. and Starr, Irving S. (1991). Secondary and Middle School Teaching Methods (6th ed.). New York: Macmillan Publishing Company.

Coleman, James S., et al. (1966). Equality of Educational Opportunity. Washington, D.C.: U.S. Government Printing Office.

Conant, James B. (1959). The American High School Today. New York: McGraw Hill Book Company.

Gage, N.L. (1984) What do we know about teaching effectiveness? Phi Delta Kappan, October.

Goodlad, John I. (1990). Teachers for Our Nations Schools. San Francisco: Jossey-Bass Publications.

Harris, Ben and Bessent, Wailand (1969). In-Service Education, A Guide to Better Practice. Englewood Cliffs, N.J. : Prentice Hall.

Holmes Group (1986). Tomorrow's Teachers: A Report of the Holmes Group. East Lansing, Michigan: The Author.

Hunt, J.G. (1987). Views of state teacher certification directors. Journal of Teacher Education, 38(5), 43-44.

Hunter, Madeline (1982). Mastery Teaching. El Segundo, California: TIP Publications.

Jencks, Christopher, et al. (1972). Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic Books.

Manatt, Richard (1988) . Teacher performance evaluation: A total systems approach in Teacher Evaluation: Six Prescriptions for Success (edited by Sarah J. Stanley and W. James Popham). Alexandria, VA: Association for Supervision and Curriculum Development.

McCarthy, Bernice (1980). The 4MAT System. Barrington, Illinois: EXCEL, Inc.

Orlich, Donald C., Harder, Robert J., Callahan, Richard C., Kauchak, Donald P., Pendergrass, R>A>, Keogh, Andrew, and Gibson, Harry (1990). Teaching Strategies: A Guide to Better Instruction (3rd ed.) . Lexington, Mass.: D.C. Heath and Company.

PATE IV Teaching Teachers: Facts and Figures (1991). Washington, D.C.: American Association of Colleges of Teacher Education.

Rieck, William A. (1989). PIP = Instructional Improvement, Educational Viewpoints, 9 16-17.

Rubin, L.J. (1969). A Study on the Continuing Education of Teachers. University of California, Center for Coordinated Education.

Silver, Harvey F, Strong, Richard W. and Hanson, J. Robert (1987). Teaching Strategy Library. Alexandria, VA: Association for Supervision and Curriculum Development.

Sizer, Theodore R. (1983). A Celebration of Teaching: High Schools in the 1980's. Reston, VA: National Association of Secondary School Principals.

Tracy, S.J., et al. (1988). Teacher education reform: The implementors' reactions, Action in Teacher Education. 10(3) 14-21.